



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

May 27 2009

Joel T. King
District Ranger
Wild Rivers Ranger District
26568 Redwood Highway
Cave Junction, OR 97523

Subject: Tracy Placer Mining Project
EPA Project Number 06-027-AFS

Dear Mr. King:

The U.S. Environmental Protection Agency (EPA) reviewed the draft Environmental Impact Statement (DEIS) for the *Tracy Placer Mining Project* in the Wild Rivers Ranger District of the Rogue River-Siskiyou National Forest. Our review was conducted in accordance with EPA responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act (CAA).

The DEIS analyzes three alternatives associated with placer mining in the alluvium deposit adjacent to Sucker Creek and within Cedar Gulch and an un-named creek. The project area is 5 acres and mining would occur over approximately 5 years. Alternative 1 is the company's proposed alternative, Alternative 2 is the Forest Service Preferred Alternative and includes additional mitigation beyond the company's proposal, and Alternative 3 is the no action alternative. Our comments focus on the Forest Service's Preferred Alternative (Alt 2).

The DEIS is well organized and clearly describes the issues. We commend the Forest Service for including the Biological Evaluations (BE) for fisheries and wildlife, the Hydrology Report, and Plan of Operations as Appendices to the DEIS. This important information helps the reader better understand the project and potential impacts. We also appreciate the Forest Service staff taking time to discuss the project and answer our questions. We look forward to continuing to work with you as the NEPA process continues.

The analysis in the DEIS indicates that the project is likely to exacerbate exceedences of water quality standards in streams on or near the project site. Therefore, EPA has objections to Alternative 2 due to the likelihood that project mining and timber harvest activities will increase temperatures in Sucker Creek, and impact Cedar Gulch and the un-named creek in the project area. EPA has concerns with potential impacts to Endangered Species Act (ESA) listed species (coho and northern spotted owl), reclamation and long term site recovery. We have rated the DEIS Environmental Objections- Insufficient Information (EO-2) based on the above issues. A summary of our rating system is included for your reference. We also have suggestions for clarifying the proposal and including information on mitigation and financial assurance.

Water Quality:
Sucker Creek

The proposal includes clearing of timber to allow placer mining in alluvial deposits adjacent to Sucker Creek. Riparian buffers are proposed as mitigation to protect water quality. There is a TMDL (1999) for temperature in Sucker Creek and the TMDL states that "Sucker Creek is a very high priority for protection and restoration, one of the most important anadromous fish watersheds in the Rogue River basin." The DEIS states that company proposed action (Alt 1) would increase temperature approximately 1 degree C, likely violating the CWA and TMDL. Alternative 2 includes additional buffers; however, there is a lack of information regarding the analysis of predicted effects and length of buffers. We believe the buffers, as proposed, could still result in temperature increases that would exacerbate exceedences of water quality standards.

The proposed buffers for portions of Sucker Creek are 65 feet downstream from the mine area, 45 feet upstream from the mine, and 25 feet in the central portion of the mine site. The mine is within the Northwest Forest Plan (NWFP) boundary and therefore, the standards in the Aquatic Conservation Strategy (ACS) apply. The buffers in the ACS are 2 site potential tree heights for perennial streams for water quality and habitat. Along with the riparian buffer standards the ACS also includes mineral mining standards, which, as the DEIS points out, are premised on "the project's ability to either meet or be compatible with the [ACS] objectives."

The TMDL target is 65% shade with 0% decrease in shade for Sucker Creek in order to reach and maintain temperature standards. The current shade level is 52%. Per the TMDL, no harvest can occur that would reduce shade unless for restoration purposes. We believe that the proposed 25 foot buffer in the mine vicinity and 45 foot buffer upstream would further degrade water quality and violate the targets established in the TMDL, further exacerbating exceedences of water quality standards. Also the proposal does not appear to be consistent with the ACS. We support the wider buffer widths in the ACS. We recommend that an alternative be developed to include buffer widths that will meet TMDL targets and the EIS should provide analyses and demonstrate that water quality would not be further degraded and that the TMDL's load allocations would be met.

The DEIS generally explains the location of buffers (e.g., "much of the buffer would be 45' wide"), but does not give specific lengths along streams. It is unclear how much of the riparian area is protected, if the riparian buffers are contiguous, and if the placement of slash piles generated from timber clearing would be outside of buffer zones. Clearing areas for slash piles or other activities in close proximity to streams can aggravate erosion and sediment delivery. The EIS should provide details of the length of buffer zones and information on where the slash piles are located in relation to buffer widths.

Recommendations:

We recommend that the final EIS fully analyze a preferred alternative with additional buffers that are consistent with TMDL targets and demonstrate that buffers will not result in temperature increases in Sucker Creek, using shade modeling and additional analytical techniques as necessary to support conclusions.

We recommend that the final EIS provide details of riparian buffer lengths, and include a figure illustrating the location of buffer zones. We also recommend that buffers be continuous throughout the project.

Cedar Gulch and un-named creek

Excavation for mining is proposed in two perennial streams, Cedar Gulch and an un-named creek. The DEIS states that these streams would be diverted so that mining would occur in dry streambeds. The DEIS does not describe the detailed location and physical nature of the hydrology including the hyporheic zone at the project site. We believe the document should examine the direct, indirect, and cumulative impacts to hydrologic resources. For example, hyporheic zones are important features of the stream ecosystem, potentially providing cold water and biological connections to the stream system. The document should describe these types of interactions and discuss the potential impacts to water quality from an excavated streambed.

The proposal does not include buffer zones along these streams except in a short segment near their confluence to Sucker Creek. The EIS states that harvest includes late succession trees and "no (or very few) large trees would be left standing inside the activity area." The company has applied for a Corps of Engineers 404 permit for excavation in the un-named creek. There are no details on the water quality analysis for direct impacts to Cedar Gulch or the un-named creek and the EIS does not include details on the analysis for their contribution to Sucker Creek. In order to reach temperature targets in Sucker Creek, tributary waters must also be managed for temperature. Therefore EPA believes that application of the TMDL targets to Cedar Gulch and the un-named creek is needed for adequate water quality protection. Furthermore, antidegradation provisions of the CWA apply to those waterbodies where water quality standards are currently being met. This provision prohibits degrading the water quality unless an analysis shows that important economic and social development necessitates degrading water quality. The EIS should explain how the antidegradation provisions would be met for the proposed project.

Recommendations:

The final EIS should analyze impacts to water quality from harvest activities and should also analyze the hydrologic functions in Cedar Gulch and un-named creek. The analysis should demonstrate that violations to the CWA would not occur.

CWA Section 404 Permit:

The DEIS states that the company applied for a Corps of Engineers 404 permit for excavation in the un-named creek. The EIS does not provide details of the mitigation that would be required nor does it discuss the need for a permit for the in-channel mining of Cedar Gulch. The 404(b)(1) Guidelines require that the selected alternative be the least environmentally damaging practicable alternative, so analysis would need to show rationale to support that choice. We believe that the preferred alternative could be modified to one that is more practicable and less damaging. We recommend that EIS discuss the coordination of the NEPA and 404 process and discuss details of what the permit includes and what mitigation would be required.

Recommendation:

We recommend that the EIS discuss the requirements of the 404 permit and the coordination between the NEPA process and Corps of Engineers process.

ESA:

Coho and Northern Spotted Owl are listed as Threatened under ESA and the determination in the BEs for both species is *May Affect and Likely to Adversely Affect*. The potential affects to mining pose concerns that we believe should be addressed in the EIS.

Coho salmon

Coho are ESA listed due to sediment/turbidity and habitat impacts. The EIS states that there would be injury or death ("take") to juvenile coho salmon due to large, heavy vehicles fording Sucker Creek for tree felling and skidding operations. One of the main causes of sediment sources identified in the TMDL was streambank failures as a result of placer mining. Excess fine sediment can diminish salmon habitat and reduce invertebrate populations (Waters 1995) but can also increase the stream's surface area. These changes in sediment input can lead to increased width-depth ratio, which can cause increases in temperature (Leopold, et al., 1964). Although there is not a water quality standard for total suspended solid or sediment in Oregon, we believe potential increases of sediment from fording, harvest activities, and potential changes to channel morphology could be detrimental to aquatic species and would directly affect coho as stated in the BE.

Another issue we have is direct impacts to coho in Cedar Gulch and the un-named creek. Although the EIS discusses indirect effects to Sucker Creek from activities in or near these creeks and concludes that they would be negligible, the EIS does not analyze the direct impacts to these creeks. We understand from our conversation with Forest Service staff that fish species would be moved from Cedar Gulch prior to mining. This indicates that aquatic species utilize Cedar Gulch; however, the EIS does not provide details about this action or the location of fish populations in Cedar Gulch or un-named creek. The EIS also does not analyze the impacts to aquatic species from removing fish or from ground disturbing mine activities in these channels. We strongly recommend that the EIS include an analysis of impacts to aquatic species in Cedar Gulch and un-named creek from proposed activities.

Recommendations:

We recommend that the final EIS include additional mitigation to reduce adverse impacts to coho. The FEIS and ROD should include and incorporate terms and conditions in the Biological Opinion. We recommend that the EIS include additional analyses of impacts to Cedar Gulch and the un-named creek from mining and timber harvest activities.

Northern Spotted Owl

The proposal includes timber harvest on approximately 8 acres of suitable foraging/dispersal habitat. The EIS states that harvest includes late succession trees and "no (or very few) large trees would be left standing inside the activity area." This has potential to harm individual northern spotted owls due to the long-term decline in prey production on the site and the additive effect of degrading suitable habitat locally. The EIS notes that decreasing habitat is the primary factor associated with spotted owls' continued decline. The boundary of the NWFP

was designed for public lands "within the northern spotted owl habitat" and part of the NWFP mission is to manage for forest habitat. We are concerned about potential adverse impacts to spotted owls. The DEIS is unclear about how the proposal, which would adversely affect spotted owls, aligns with the management objectives of the NWFP.

Recommendation:

We recommend that adverse impacts to spotted owl habitat be avoided and that the EIS describe how the project is consistent with the NWFP. We recommend preserving large diameter trees for habitat.

Reclamation:

We understand that this site is highly degraded from past mining. The EIS states that site productivity/plant growth would be further degraded because of past mining and due to mixing of organic matter, soil, and rock during mining. Site recovery is expected to take a century or longer. We have major concerns with a project that is not expected to recover for potentially longer than one hundred years. One suggestion we have is to separate the topsoil before excavation occurs. It is typical with mining to stockpile topsoil so that it can be used in reclamation and facilitate site regeneration. If the site is degraded to a degree that topsoil cannot be separated, we believe that expected long term site recovery could affect habitat and water quality due to a low percentage of vegetative cover for a long duration. We also believe that leaving very little land cover over a long period creates a greater potential for mass wasting events.

Recommendation:

We recommend that the project include mitigation that would better facilitate reclamation. We recommend that the EIS include analysis of how long term site recovery affects habitat, erosion potential, and water quality.

Mitigation:

The EIS does not include details of a mitigation plan. A comprehensive discussion of proposed mitigation for direct, indirect and cumulative impacts is required by the CEQ Regulations. A NEPA document should include the means to mitigate adverse environmental effects (40 CFR 1508.7). We believe it is necessary to not only identify mitigation measures, but also to discuss mitigation effectiveness. Mitigation effectiveness is determined by monitoring designed to compare baseline data with existing conditions.

EPA recommends that a detailed compensatory mitigation plan for unavoidable resource impacts be developed and included in the NEPA document. This mitigation plan should include consideration of direct, indirect, and cumulative effects. It should contain a statement of goals, a monitoring plan, long-term management/protection objectives and a contingency plan (a commitment to conduct additional work if required to meet the goals of the plan). The mitigation plan should also include best management practices where applicable.

Recommendation:

We recommend that the EIS include details of the mitigation plan and monitoring plan.

Financial Assurance:

The EIS states that most issues identified during scoping would be addressed in this EIS including estimated amount of bonding that would be required. We were glad to see that reclamation bonding was identified as an item that would be included in the EIS; however, when we looked to review the information on the bond estimate we did not find it in the document. We strongly support including this information in the final EIS and disclosing costs associated with implementing the reclamation plan, as well as costs associated with implementing contingency measures to deal with reasonably foreseeable but not specifically predicted outcomes. This is necessary to inform the public and decision-makers of the financial risk to the public posed by conditions at the site. We recommend that this information be included in the EIS. A table as well as a summary can be a very helpful way to see the costs and have an understanding of what is included in the costs.

Thank you for the opportunity to provide comments early in the NEPA process. If you have any questions please contact Lynne McWhorter at (206) 553-0205 or via email at mcwhorter.lynn@epa.gov.

Sincerely,

//s//

Richard B. Parkin, Acting Director
Office of Ecosystems, Tribal, and Public Affairs

References

Leopold, L.B., M.G. Wolman, and J.P. Miller. 1964. *Fluvial Processes in Geomorphology*. W.H. Freeman & Company, San Francisco.

Waters, T.F. 1995. Sediment in streams: sources, biological effects and control. American Fisheries Society, Bethesda, Md. 251 p

